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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. 262/091

First Inventor Heng-Yu Jian, et al.

Title REDUCING THE PEAK-TO-AVERAGE POWER  
RATIO OF A COMMUNICATION SIGNAL

Express Mail Label No. EL844592480US

10096 U.S. PTO  
06/25/01

|   |  |  |  |
|---|--|--|--|
| <b>APPLICATION ELEMENTS</b>   |  | <b>ADDRESS TO:</b>   |  |
| See MPEP chapter 600 concerning utility patent application contents.  |  | Commissioner for Patents<br>Box Patent Application<br>Washington, DC 20231 |  |
| <p>1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g., PTO/SB/17)<br/>(Submit an original and a duplicate for fee processing)</p> <p>2. <input type="checkbox"/> Applicant claims small entity status.<br/>See 37 CFR 1.27.</p> <p>3. <input checked="" type="checkbox"/> Specification [Total Pages 36]<br/>(preferred arrangement set forth below)<br/>- Descriptive title of the Invention<br/>- Cross Reference to Related Applications<br/>- Statement Regarding Fed sponsored R &amp; D<br/>- Reference to sequence listing, a table, or a computer program listing appendix<br/>- Background of the Invention<br/>- Brief Summary of the Invention<br/>- Brief Description of the Drawings (if filed)<br/>- Detailed Description<br/>- Claim(s)<br/>- Abstract of the Disclosure</p> <p>4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 9]</p> <p>5. Oath or Declaration [Total Pages ]<br/>a. <input type="checkbox"/> Newly executed (original or copy)<br/>b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63 (d))<br/>(for a continuation/divisional with Box 18 completed)<br/>i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b><br/>Signed statement attached deleting inventor(s)<br/>named in the prior application, see 37 CFR<br/>1.63(d)(2) and 1.33(b).</p> <p>6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76</p> |  |  |  |
| <p>7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)</p> <p>8. Nucleotide and/or Amino Acid Sequence Submission<br/>(if applicable, all necessary)<br/>a. <input type="checkbox"/> Computer Readable Form (CRF)<br/>b. Specification Sequence Listing on:<br/>i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or<br/>ii. <input type="checkbox"/> paper<br/>c. <input type="checkbox"/> Statements verifying identity of above copies</p>  |  |  |  |
| <b>ACCOMPANYING APPLICATIONS PARTS</b>  |  |  |  |
| <p>9. <input type="checkbox"/> Assignment Papers (cover sheet &amp; document(s))</p> <p>10. <input type="checkbox"/> 37 C.F.R. §3.73(b) Statement <input type="checkbox"/> Power of<br/>(when there is an assignee) Attorney</p> <p>11. <input type="checkbox"/> English Translation Document (if applicable)</p> <p>12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS<br/>Citations</p> <p>13. <input type="checkbox"/> Preliminary Amendment</p> <p>14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503)<br/>(Should be specifically itemized)</p> <p>15. <input type="checkbox"/> Certified Copy of Priority Document(s)<br/>(if foreign priority is claimed)</p> <p>16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122<br/>(b)(2)(B)(i). Applicant must attach form PTO/SB/35<br/>or its equivalent</p> <p>17. <input checked="" type="checkbox"/> Other: Certificate of Mailing (37 C.F.R. § 1.10);<br/>Appendix A; and<br/>Lyon &amp; Lyon Check No. 14234 for \$1,678.00</p>  |  |  |  |

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation  Divisional  Continuation-in-part (CIP)

of prior application No: \_\_\_\_\_ /

Group / Art Unit: \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

## 17. CORRESPONDENCE ADDRESS

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| <input type="checkbox"/> Customer Number or Bar Code Label |   | <br>(Insert Customer No. or attach bar code label here) |                                   | or <input type="checkbox"/> Correspondence address below |                |
| Name   | Robert S. Mayer, Esq. <b>22249</b>  |   |                                   |  |                |
|  | PATENT TRADEMARK OFFICE   |   |                                   |  |                |
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| Name (Print/Type)  | Robert S. Mayer   |   | Registration No. (Attorney/Agent) | 38,544   |                |
| Signature  |  |   | Date                              | June 25, 2001  |                |

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# FEE TRANSMITTAL for FY 2001

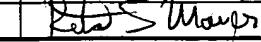
Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$ 1,678.00)

| Complete if Known    |                      |
|----------------------|----------------------|
| Application Number   |                      |
| Filing Date          | June 25, 2001        |
| First Named Inventor | Heng-Yu Jian, et al. |
| Examiner Name        |                      |
| Group / Art Unit     |                      |
| Attorney Docket No.  | 262/091              |

| METHOD OF PAYMENT (check one)  |                       |                       |                       |  | FEE CALCULATION (continued)   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
|--|-----------------------|-----------------------|-----------------------|--|---|----------|-------|-------|--------------|----------------|-----------------------|-----------------------|-----------------------|-----------------|----------|------|-------|-----|--------------------|-------------------------------------|--|-----|-----|-----|----|--|----------|----------|----------|-----------------|----------|---------------------------|----|-----|-------|------------------------|-------|--|----|-----|------|-----------------------------------|------|--|-----|-----|--------|---------------------------------------|--------|---|----|-----|-----|--|----|--|----|-----|-----|--|-----|---|--|-----|-----|-----|-----|--|--|-----|-------|-----|-----|---|--|-----|-------|-----|-----|--|--|-----|-----|-----|-----|------------------|--|-----|-----|-----|-----|--|--|-----|-----|-----|-----|--------------------------|--|-----|-------|-----|-------|---|--|-----|-----|-----|----|----------------------------------|--|-----|-------|-----|-----|------------------------------------|--|-----|-------|-----|-----|--------------------------------|--|-----|-----|-----|-----|------------------|--|-----|-----|-----|-----|-----------------|--|-----|-----|-----|-----|-------------------------------|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|---|--|-----|----|-----|----|--|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|--|--|-----|-----|-----|-----|---|--|-----|-----|-----|-----|---|--|---------------------|--|--|--|--|--|-----------------------------------|--|--|--|--|---------------------|
| <p>1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:</p> <p>Deposit Account Number <span style="border: 1px solid black; padding: 2px;">12-2475</span></p> <p>Deposit Account Name <span style="border: 1px solid black; padding: 2px;">Lyon &amp; Lyon</span></p> <p><input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17</p> <p><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27</p>   |                       |                       |                       |  | <p>3. ADDITIONAL FEES</p> <table border="1"> <thead> <tr> <th>Fee Code</th> <th>Large Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Small Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>390</td><td>216</td><td>195</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>890</td><td>217</td><td>445</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,390</td><td>218</td><td>695</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,890</td><td>228</td><td>945</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>310</td><td>219</td><td>155</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>310</td><td>220</td><td>155</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>270</td><td>221</td><td>135</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive – unavoidable</td><td></td></tr> <tr><td>141</td><td>1,240</td><td>241</td><td>620</td><td>Petition to revive – unintentional</td><td></td></tr> <tr><td>142</td><td>1,240</td><td>242</td><td>620</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>440</td><td>243</td><td>220</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>600</td><td>244</td><td>300</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>130</td><td>123</td><td>130</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>710</td><td>246</td><td>355</td><td>Filing a submission after final rejection (37 CFR § 1.129(a))</td><td></td></tr> <tr><td>149</td><td>710</td><td>249</td><td>355</td><td>For each additional invention to be examined (37 CFR § 1.129(b))</td><td></td></tr> <tr><td>179</td><td>710</td><td>279</td><td>355</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr> <td colspan="5">Other fee (specify)</td> <td></td> </tr> <tr> <td colspan="5">*Reduced by Basic Filing Fee Paid</td> <td>SUBTOTAL (3) (\$ 0)</td> </tr> </tbody> </table> |          |       |       |              | Fee Code       | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description | Fee Paid | 105  | 130   | 205 | 65                 | Surcharge - late filing fee or oath |  | 127 | 50  | 227 | 25 | Surcharge - late provisional filing fee or cover sheet |          | 139      | 130      | 139             | 130      | Non-English specification |    | 147 | 2,520 | 147                    | 2,520 | For filing a request for reexamination |    | 112 | 920* | 112                               | 920* | Requesting publication of SIR prior to Examiner action |     | 113 | 1,840* | 113                                   | 1,840* | Requesting publication of SIR after Examiner action |    | 115 | 110 | 215  | 55 | Extension for reply within first month |    | 116 | 390 | 216  | 195 | Extension for reply within second month |  | 117 | 890 | 217 | 445 | Extension for reply within third month |  | 118 | 1,390 | 218 | 695 | Extension for reply within fourth month |  | 128 | 1,890 | 228 | 945 | Extension for reply within fifth month |  | 119 | 310 | 219 | 155 | Notice of Appeal |  | 120 | 310 | 220 | 155 | Filing a brief in support of an appeal |  | 121 | 270 | 221 | 135 | Request for oral hearing |  | 138 | 1,510 | 138 | 1,510 | Petition to institute a public use proceeding |  | 140 | 110 | 240 | 55 | Petition to revive – unavoidable |  | 141 | 1,240 | 241 | 620 | Petition to revive – unintentional |  | 142 | 1,240 | 242 | 620 | Utility issue fee (or reissue) |  | 143 | 440 | 243 | 220 | Design issue fee |  | 144 | 600 | 244 | 300 | Plant issue fee |  | 122 | 130 | 122 | 130 | Petitions to the Commissioner |  | 123 | 130 | 123 | 130 | Petitions related to provisional applications |  | 126 | 180 | 126 | 180 | Submission of Information Disclosure Stmt |  | 581 | 40 | 581 | 40 | Recording each patent assignment per property (times number of properties) |  | 146 | 710 | 246 | 355 | Filing a submission after final rejection (37 CFR § 1.129(a)) |  | 149 | 710 | 249 | 355 | For each additional invention to be examined (37 CFR § 1.129(b)) |  | 179 | 710 | 279 | 355 | Request for Continued Examination (RCE) |  | 169 | 900 | 169 | 900 | Request for expedited examination of a design application |  | Other fee (specify) |  |  |  |  |  | *Reduced by Basic Filing Fee Paid |  |  |  |  | SUBTOTAL (3) (\$ 0) |
| Fee Code   | Large Entity Fee (\$) | Small Entity Fee Code | Small Entity Fee (\$) | Fee Description  | Fee Paid  |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 105  | 130                   | 205                   | 65                    | Surcharge - late filing fee or oath  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 127  | 50                    | 227                   | 25                    | Surcharge - late provisional filing fee or cover sheet                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 139  | 130                   | 139                   | 130                   | Non-English specification  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 147  | 2,520                 | 147                   | 2,520                 | For filing a request for reexamination                                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 112  | 920*                  | 112                   | 920*                  | Requesting publication of SIR prior to Examiner action                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 113  | 1,840*                | 113                   | 1,840*                | Requesting publication of SIR after Examiner action                        |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 115  | 110                   | 215                   | 55                    | Extension for reply within first month                                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 116  | 390                   | 216                   | 195                   | Extension for reply within second month                                    |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 117  | 890                   | 217                   | 445                   | Extension for reply within third month                                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 118  | 1,390                 | 218                   | 695                   | Extension for reply within fourth month                                    |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 128  | 1,890                 | 228                   | 945                   | Extension for reply within fifth month                                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 119  | 310                   | 219                   | 155                   | Notice of Appeal   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 120  | 310                   | 220                   | 155                   | Filing a brief in support of an appeal                                     |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 121  | 270                   | 221                   | 135                   | Request for oral hearing   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 138  | 1,510                 | 138                   | 1,510                 | Petition to institute a public use proceeding                              |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 140  | 110                   | 240                   | 55                    | Petition to revive – unavoidable   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 141  | 1,240                 | 241                   | 620                   | Petition to revive – unintentional   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 142  | 1,240                 | 242                   | 620                   | Utility issue fee (or reissue)   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 143  | 440                   | 243                   | 220                   | Design issue fee   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 144  | 600                   | 244                   | 300                   | Plant issue fee  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 122  | 130                   | 122                   | 130                   | Petitions to the Commissioner  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 123  | 130                   | 123                   | 130                   | Petitions related to provisional applications                              |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 126  | 180                   | 126                   | 180                   | Submission of Information Disclosure Stmt                                  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 581  | 40                    | 581                   | 40                    | Recording each patent assignment per property (times number of properties) |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 146  | 710                   | 246                   | 355                   | Filing a submission after final rejection (37 CFR § 1.129(a))              |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 149  | 710                   | 249                   | 355                   | For each additional invention to be examined (37 CFR § 1.129(b))           |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 179  | 710                   | 279                   | 355                   | Request for Continued Examination (RCE)                                    |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 169  | 900                   | 169                   | 900                   | Request for expedited examination of a design application                  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| Other fee (specify)  |                       |                       |                       |  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| *Reduced by Basic Filing Fee Paid  |                       |                       |                       |  | SUBTOTAL (3) (\$ 0)   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| <p>2. EXTRA CLAIM FEES</p> <table border="1"> <thead> <tr> <th>Total Claims</th> <th>56</th> <th>-20**</th> <th>= 360</th> <th>Extra Claims</th> <th>Fee from below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Independent Claims</td> <td>7</td> <td>-3**</td> <td>= 4</td> <td>X 80</td> <td>= 320</td> <td></td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td>X 0</td> <td>= 0</td> <td></td> </tr> </tbody> </table> <p>Large Entity Small Entity</p> <table border="1"> <thead> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>80</td><td>202</td><td>40</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>270</td><td>204</td><td>135</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>80</td><td>209</td><td>40</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> </tbody> </table> <p>SUBTOTAL (2) (\$ 968)</p> |                       |                       |                       |  | Total Claims  | 56       | -20** | = 360 | Extra Claims | Fee from below | Fee Paid              | Independent Claims    | 7                     | -3**            | = 4      | X 80 | = 320 |     | Multiple Dependent |                                     |  |     | X 0 | = 0 |    | Fee Code   | Fee (\$) | Fee Code | Fee (\$) | Fee Description | Fee Paid | 103                       | 18 | 203 | 9     | Claims in excess of 20 |       | 102                                    | 80 | 202 | 40   | Independent claims in excess of 3 |      | 104  | 270 | 204 | 135    | Multiple dependent claim, if not paid |        | 109   | 80 | 209 | 40  | ** Reissue independent claims over original patent |    | 110                                    | 18 | 210 | 9   | ** Reissue claims in excess of 20 and over original patent |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| Total Claims   | 56                    | -20**                 | = 360                 | Extra Claims   | Fee from below  | Fee Paid |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| Independent Claims   | 7                     | -3**                  | = 4                   | X 80   | = 320   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| Multiple Dependent   |                       |                       |                       | X 0  | = 0   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| Fee Code   | Fee (\$)              | Fee Code              | Fee (\$)              | Fee Description  | Fee Paid  |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 103  | 18                    | 203                   | 9                     | Claims in excess of 20   |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 102  | 80                    | 202                   | 40                    | Independent claims in excess of 3  |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 104  | 270                   | 204                   | 135                   | Multiple dependent claim, if not paid                                      |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 109  | 80                    | 209                   | 40                    | ** Reissue independent claims over original patent                         |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |
| 110  | 18                    | 210                   | 9                     | ** Reissue claims in excess of 20 and over original patent                 |   |          |       |       |              |                |                       |                       |                       |                 |          |      |       |     |                    |                                     |  |     |     |     |    |  |          |          |          |                 |          |                           |    |     |       |                        |       |  |    |     |      |                                   |      |  |     |     |        |                                       |        |   |    |     |     |  |    |  |    |     |     |  |     |   |  |     |     |     |     |  |  |     |       |     |     |   |  |     |       |     |     |  |  |     |     |     |     |                  |  |     |     |     |     |  |  |     |     |     |     |                          |  |     |       |     |       |   |  |     |     |     |    |                                  |  |     |       |     |     |                                    |  |     |       |     |     |                                |  |     |     |     |     |                  |  |     |     |     |     |                 |  |     |     |     |     |                               |  |     |     |     |     |   |  |     |     |     |     |   |  |     |    |     |    |  |  |     |     |     |     |   |  |     |     |     |     |  |  |     |     |     |     |   |  |     |     |     |     |   |  |                     |  |  |  |  |  |                                   |  |  |  |  |                     |

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|-------------------|---|----------------------------------|--------|-----------|----------------|--------------------------|
| Name (Print/Type) | Robert S. Mayer   | Registration No. Attorney/Agent) | 38,544 | Telephone | (914) 681-8851 |                          |
| Signature         |  |                                  |        | Date      | June 25, 2001  |                          |

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## TUTORIAL APPENDIX A

## decrest.m

```

function [Cxde, th]=decrest(X,NUM_CHAN)

z=20*log10(max(abs(X))/rms(abs(X)));
disp(sprintf(' Baseband Peak to Average Ratio before decresting= %1.3f dB ',z));
%disp(sprintf(' rms of the original signal %1.0f ',rms(X)));
%disp(sprintf(' peak of the original signal %1.0f ',max(abs(X))));

amp=abs(X);
phase=angle(X);

if NUM_CHAN > 1
    fp=1.8e6;
    dec=6;
    th=rms(amp)*10^(dec/20);
    Be=firls(16, [0 fp fp+130e3 (1.2288e6*2)]/(1.2288e6*2), [1 1 0 0], [1 1e3]);
else
    fp=0.6e6;
    dec=4.1;
    th=rms(amp)*10^(dec/20);
    Be=firls(16, [0 fp fp+130e3 (1.2288e6*2)]/(1.2288e6*2), [1 1 0 0], [1 1e3]);
end

%disp(sprintf(' threshold %1.0f ',th));
%Decresting filter
Be=Be/max(Be);
Bx=zeros(16,1); Bx(16/2+1)=1;

%First stage Decresting
I=find(amp<=th);
Er(I)=0;
J=find(amp>th);
Er(J)=amp(J)-th;
%disp(sprintf(' rms of the peak signal %1.0f ',rms(Er)));

Er2=[Er(2:end) Er(1)];
Er3=[Er(end) Er(1:end-1)];

```

```

decrest.m
    % find the local peak

K=Find(Er>Er2 & Er>Er3);
E=zeros(size(Er));
E(K)=Er(K);
E=E.*exp(j*phase);

E1=filter(Be,1,E);
X=filter(Bx,1,X);
X=X-E1;

k=find(abs(X)>th);
%disp(sprintf(' Number of peaks not decrested = %1d ',length(k)));
%figure; plot(filter(Bx,1,abs(Er))); hold on; plot(abs(filter(Be,1,E)),'r--'); %plot( (filter(Bx
,1,abs(Er)) - (abs(filter(Be,1,E))), 'g--');

z=20*log10(max(X)/rms(X));
%disp(sprintf(' Peak to Average Ratio after first decresting= %1.3f dB ',z));

%Second stage Decresting
amp=abs(X);
signal
phase=angle(X);
    % the amplitude of the

I=Find(amp<=th);
Er(I)=0;
J=Find(amp>th);
Er(J)=amp(J)-th;

Er2=[Er(2:end) Er(1)];
Er3=[Er(end) Er(1:end-1)];
K=Find(Er>Er2 & Er>Er3);
E=zeros(size(Er));
E(K)=Er(K);
E=E.*exp(j*phase);

E2=filter(Be,1,E);
X=filter(Bx,1,X);

```

```
Cxde=X-E2;

k=find(abs(Cxde)>th);
disp(sprintf(' Number of peaks not decrested = %1d ',length(k)));
%Figure; plot(filter(Bx,1,abs(Er)); hold on; plot(abs(filter(Be,1,E)),'r--'); plot(filter(Bx,
1,abs(Er))-(abs(filter(Be,1,E))), 'g--');

z=20*log10(max(Cxde)/rms(Cxde));

disp(sprintf(' rms of the error signal %1.0f ',sqrt(rms(E1)^2+rms(E2)^2)));
%disp(sprintf(' rms of the decrested signal %1.0f ',rms(Cxde));
%disp(sprintf(' peak of the decrested signal %1.0f ',max(abs(Cxde)));
disp(sprintf(' Baseband Peak to Average Ratio after second decresting= %1.3f dB ',z));
```